IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

10   <u>APPEAL BRIEF ON BEHALF OF SHAULA ALEXANDER YEMINI
PURSUANT TO 37 C.F.R. 41.31</u>

APPLICANT:	Shaula Alexander Yemini	*GROUP ART UNIT:*	2123
U.S.S.N.:	10/813,842	*CONFIRMATION NO.:*	6059
FILING DATE:	March 31, 2004	*EXAMINER:*	Kim, Eunhee
		CUSTOMER NO.	**24227**
TITLE:	*METHOD AND APPARATUS FOR MULTI-REALM SYSTEM MODELING*		

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ATTENTION: Board of Patents Appeals and Interferences

Dear Sir:

    This is an Appeal Brief in connection with an Appeal from a final rejection

25   mailed August 17, 2009 in the above-identified application. A Notice of Appeal was previously

filed. This is filed with a two month extension and appropriate fees under 35 CFR 1.136 from

the date of decision of the pre-appeal brief which was mailed March 19, 2009. No additional

fees are believed due, however any fees required for consideration of this paper are authorized to

be charged per the Transmittal Form filed herewith.

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5   (I)   **Real Party in Interest**

The real party in interest is EMC Corporation, a corporation existing by virtue of the laws of the Commonwealth of Massachusetts.

10   (II)   **Related Appeals and Interferences**

Applicants are unaware of any related appeals or interferences involving the instant appeal which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending action.

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(III)   **Status of Claims**

Claims 1-6, 20-33, 42, 44-45, 62, 64-73, 87-93, 107-118, 127, 129-130, 147-152, 165-177, 185, 187-188, 205-209, 223-224, 233, 236, 238-241, 255-268, 276-277, 279-280, 297-301, and 303-319 stand rejected.

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Claims 1-6, 20-33, 42, 44-45, 62, 64-73, 87-93, 107-118, 127, 129-130, 147-152, 165-177, 185, 187-188, 205-209, 223-224, 233, 236, 238-241, 255-268, 276-277, 279-280, 297-301, and 303-319 are on appeal.

25   (IV)   **Status of Amendments**

A listing of the claims is entered as an Appendix to this Appeal at section (VIII). No amendments have been filed subsequent to the final rejection. The claims have been twice and finally rejected so this appeal is timely as required under 37 CFR 1.191.

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5 V) **Summary of the Claimed Subject Matter**

Independent Claim 1

      Independent Claim 1 is directed to modeling a system having one or more components, the method comprising:

10   (a) dividing said system into one or more components; (pages 8, 14, 16, 17, 19, 21, 26, 30, 34, 35, 36, 42, 46, 47, Figures 19, 20, 30)

          (b) defining a plurality of realms, wherein each of said realms contains objects representing selected ones of said one or more components, wherein components include at least one physical element of the system, said objects representing attributes and relationships of an 15 associated one of the one or more components; (pages 2, 4, 5, 17, 21, 22, 25, 29, 31, 33, 34, 36, 48 and Figures 3-5)

          (c) defining associations between realms to unify objects in said realms, wherein said associations represent at least one object common to at least two of said realms; and (pages 8, 14, 16-21, 23-25, 28, 29, 31, 32, 34, 35, 38, 40, 42, 48 and Figures 2, 12)

20   (d) unifying objects in said realms based on said associations, and propagating a behavior of one realm to another realm using at least one association between the one realm and the another realm. (pages 8, 16, 23, 28, 35 and Figures 2, 10)

5   (VI)   **Grounds for Rejection to be reviewed on Appeal**

   A. Whether Claims 1-5, 20-33, 44-45, 62, 64-72, 87-92, 107-118, 129-130, 147-151, 165-177, 187-188, 205-208, 223-224, 236, 238-240, 255-268, 276, 279-280, 297-300, 303-304, 306-307, 309-310, 321-313, 315-319 are unpatentable over Bowman-
10   Amuah (U.S. Patent No. 6,289,382) under 35 U.S.C. § 102(b).

   B. Whether Claims 6, 73, 93, 152, 209, and 241 are unpatentable over Bowman-Amuah in view of Semeria (Multiprotocol Label Switching: Enhancing Routing in the New Public Network) under 35 U.S.C. § 103(a) and whether Claims 42, 127, 185, 233,
15   277, 301, 305, 308, 311 and 314 are unpatentable over Bowman-Amuah in view of McGee et. al., (U.S. Pub. No. 2003/0079160) under 35 U.S.C. § 103(a).

5   (VII) **Argument**

      A. Claims 1-5, 20-33, 44-45, 62, 64-72, 87-92, 107-118, 129-130, 147-151, 165-177, 187-188, 205-208, 223-224, 236, 238-240, 255-268, 276, 279-280, 297-300, 303-304, 306-307, 309-310, 321-313, 315-319 Are Not Anticipated By Bowman-Amuah

10   Applicants hereby respectfully request review of the Final Office Action of August 17, 2009 as the cited art is insufficient to reject Applicants' claims under 35 U.S.C. § 102(b). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Ca.*, 814 F.2d 628, 631 (Fed. Cir. 1987); MPEP § 2131. Here, independent Claims 1, 62,

15   88, 147, 205, and 236 are the method, system, computer product, and apparatus versions of each that were rejected together under 35 U.S.C. § 102(b) as anticipated by Bowman-Amuah, U.S. Patent No. 6,289,382, (Bowman-Amuah). Applicants respectfully assert that Bowman-Amuah cannot be used as a proper § 102(b) rejection as it does not disclose each and every element of the claimed invention. Specifically, Applicants assert Bowman-Amuah does not expressly or

20   implicitly disclose, at least, the claim features as recited in independent Claim 1 that is representative of all other independent Claims: "defining associations between realms . . ." where "unifying objects" are based on "said associations." The rejection of all other Claims relies on this 35 U.S.C. § 102(b) rejection of the independent Claims. As such, Applicants request that the rejection be removed as to all claims mentioned above.

25   Bowman-Amuah does not expressly disclose "defining associations between

          realms . . . [where] unifying objects" are based on "said associations"

      Applicants respectfully aver that Bowman-Amuah does not expressly disclose the "defining of associations" and "unifying objects" based on such associations as disclosed in the

independent claims.   Specifically, independent Claim 1, which contains this feature and is generally representative of all independent claims, states:

A method for modeling a system having one or more components, the method comprising:

(a) dividing said system into one or more components;

(b) defining a plurality of realms, wherein each of said realms contains objects representing selected ones of said one or more components, wherein components include at least one physical element of the system, said objects representing attributes and relationships of an associated one of the one or more components;

(c) defining associations between realms to unify objects in said realms, wherein said associations represent at least one object common to at least two of said realms; and

(d) unifying objects in said realms based on said associations, and propagating a behavior of one realm to another realm using at least one association between the one realm and the another realm.

Applicants assert that nowhere in Bowman-Amuah are "defining associations" and "unifying objects" based on such associations claimed or described. The Examiner, however, asserts that transforming Business Components into Partitioned Business Components while keeping the encapsulation satisfies the "unifying objects" limitation of independent Claim 1. Office Action dated 8/17/2009 at 14; Bowman-Muah at 127:20-23. Applicants respectfully disagree.

Applicants maintain that Bowman-Muah does not disclose "Business Components transforming to Partitioned Business Components," as "Business Components transforming to

5   Partitioned Business Components," is not equivalent to the recited steps of "defining

associations" and "unifying objects." Applicants' claim recites unifying objects based on

associations whereas Bowman-Amuah describes breaking down of complex elements into

smaller, cohesive elements. Office Action dated 8/17/2009 at 13-14. Particularly, Bowman-

Amuah does not expressly define the process of transforming, and the context in which the term

10   "transformation" has been used within Bowman-Amuah, to denote compartmentalization of data,

does not support the Examiner's position of transformation being equivalent to "unifying."

For example, Bowman-Amauh provides: "FIG. 54 [which] illustrates a flowchart for a

method 5400 for providing an abstraction factory pattern. Data is received and transformed into

a plurality of concrete objects in operations 5402 and 5404." Bowman-Amuah at Figure 54;

15   191:15-18. In another context, Bowman-Amuah describes, "one transforms the various types of

raw data into a corresponding variety of concrete object types, all of which share a common

abstract interface. This transformation will be encapsulated within an Abstraction Factory."

191:59-62. In yet another example, Bowman-Amuah discloses, "[v]ideo services allow

components to interface with video streams such as video surveillance. Video services can add

20   simple video monitor capabilities to a computer, or they can transform the computer into a

sophisticated video platform with the ability to generate and manipulate video." 61:42-47.

Accordingly, in Bowman-Amauh, the transforming involves a breaking down process from one

element to several other elements – smaller, cohesive. Consequently, transforming as used in

Bowman-Amuah cannot be interpreted to be the "unifying" feature of independent Claim 1.

25   Additionally, Applicants respectfully assert that the encapsulation process cannot be

equated to the "unifying objects based on associations" recited in the claims. Specifically,

Bowman-Muah states, "[t]his concept of packaging data, structures, and procedures together in

5   one component or module is called encapsulation." 10:56-11:2. Conversely, the feature recited

by Applicants, the "unifying objects based on associations," is not equivalent to a mere

packaging of data.

In the application, it is stated the term "unification" refers to the manual or automated

process of recognizing that two or more objects represent the same component or portions

10   thereof, or collection of components; or that two or more objects are related because they

represent related components. Application at 16. Also, the term "association" refers to two or

more objects of different realms representing the same system component or the same collection

of system components; or an object representing a relationship or relationships between system

components. Application at 16. Consequently, describing a packaging of data and nothing more

15   is not equivalent to and does not describe the full breath of this particular feature of Claim 1

which states the unifying of objects to be committed based on: 1) defining associations between

realms; 2) identifying such associations to unify objects; and 3) unifying objects based on such

associations. Furthermore, the transformation of the Business Component to the Partitioned

Business Component with the same encapsulation (Bowman-Amuah at 127:16-25) shows that

20   the packaging of data does not consider associations, which are affected by changes in realms

and objects (i.e., Business Component to Partitioned Business Component). Hence,

"maintaining encapsulation" as asserted and interpreted by the Examiner, is not equivalent to this

recited feature.

Lastly, the fact that a Business Component is being transformed to a "Partitioned"

25   Business Component presumes that certain objects have been broken down as opposed to the

recited feature of unification. Bowman-Amuah supports such a proposition: "[w]hereas Business

5 Components model real-world concepts in the business domain, Partitioned Business

Components implement those concepts in a particular environment." 126:2-3.

As a result, Bowman-Amuah does not set forth these elements as recited in independent

Claims 1, 62, 88, 147, 205, and 236. Therefore, Applicants assert that the 35 U.S.C. §102

rejection based on Bowman-Amuah relied upon by the Examiner is improper and does not teach

10 or suggest the invention as recited in independent Claims 1, 62, 88, 147, 205, and 236.

Accordingly, Claims 1, 62, 88, 147, 205, and 236 are allowable over the cited art and the

rejection under 35 U.S.C. §102 should be withdrawn. Claims 2-5, 20-33, 44-45, 64-72, 87, 89-

92, 107-118, 129-130, 148-151, 165-177, 187-188, 206-208, 223-224, 238-240, 255-268, 276,

279-280, 297-300, 303-304, 306-307, 309-310, 321-313, 315-319 depend on independent Claims

15 1, 62, 88, 147, 205, and 236, respectively, and are allowable for at least the reasons of

independent Claims 1, 62, 88, 147, 205, and 236. Applicants respectfully request that the Board

remand this matter in Applicants favor, the rejection be withdrawn, and the claims be placed in

condition for allowance.

B. Claims 6, 73, 93, 152, 209, and 241 Are Not Rendered Obvious Over Bowman-

20   **Amuah In View of Semeria, and Claims 42, 127, 185, 233, 277, 301, 305, 308, 311**

         and 314 Are Not Rendered Obvious Over Bowman-Amuah In View of McGee.

Both the combination of Semeria with Bowman-Amuah and the combination of

Bowman-Amuah and McGee fail to disclose the claimed invention. In the Final Office Action,

dependent Claims 6, 73, 93, 152, 209, and 241 were rejected under 35 U.S.C. § 103(a) over

25 Bowman-Amuah in view of Semeria, and dependent Claims 42, 127, 185, 233, 277, 301, 305,

308, 311 and 314 were rejected over Bowman-Amuah in view of McGee.

5   In *Teleflex v. KSR,* the Supreme Court stated that a proper 35 USC 103 rejection requires

the following steps be performed: (1) Determining the scope and content of the prior art; (2)

Ascertaining the differences between the claimed invention and the prior art; and (3) Resolving

the level of ordinary skill in the pertinent art. *Teleflex Inc. v. KSR Int'l Co.* 127 S.Ct. 1727, 1741,

82 USPQ.2d 1385, 1396 (2007). This three part test has also been reemphasized and

10   promulgated in the Federal Register. *Federal Register*, Vol. 72, No. 195.

          Here, Bowman-Amuah does not disclose "defining associations between realms . . .

[where] unifying objects" are based on "said associations" as stated above.   Applicants

respectfully assert neither Semeria nor McGee expressly discloses this limitation.   Further,

Applicants note that neither Semeria nor McGee were asserted to disclose this feature.

15   Applicants also assert that one skilled in the art would not bridge the gap between Bowman-

Amuah and Semeria or McGee to reach the claimed invention.   Therefore, Applicants assert that

the combination of Bowman-Amuah over Semeria and McGee relied upon by the Examiner is

improper and does not teach or suggest the invention.   Accordingly, it is submitted that the

dependent claims are allowable over the combination of references for at least the reason they

20   serve to further limit an allowable claim.   Hence, Applicants respectfully request the rejection

under 35 U.S.C. §103 should be reversed and the matter remanded.

          Thus, Applicants respectfully request removal of the obviousness rejection of Claims 6,

73, 93, 152, 209, and 241 over Bowman-Amuah in view of Semeria, and for the removal of the

obviousness rejection of Claims 42, 127, 185, 233, 277, 301, 305, 308, 311 and 314 over

25   Bowman-Amuah in view of McGee, and that the claims be placed in condition for allowance.

5

(VIII) **Claims Appendix**

1.   (Previously presented) A method for modeling a system having one or more components, comprising:

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(a) dividing said system into one or more components;

(b) defining a plurality of realms, wherein each of said realms contains objects representing selected ones of said one or more components, wherein components include at least one physical element of the system, said objects representing attributes and relationships of an associated one of the one or more components;

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(c) defining associations between realms to unify objects in said realms, wherein said associations represent at least one object common to at least two of said realms; and

(d) unifying objects in said realms based on said associations, and propagating a behavior of one realm to another realm using at least one association between the one realm and the another realm.

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2.   (Previously presented) The method of Claim 1, further comprising the step of:

unified processing of two or more realms by performing processing in each of said two or more realms, and

combining results thereof based on said associations of said two or more realms.

3.   (Previously presented) The method of Claim 1 wherein said system is an

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enterprise management system.

4.   (Previously presented) The method of Claim 1 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

5   5.   (Previously presented) The method of Claim 2 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

       6.   (Previously presented) The method of Claim 1 wherein said system is selected from a group consisting of: an engineering system, a distributed system, and application server
10   system, a networked system, an optical system, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an automatic computing system, a grid system, and on-demand system, and an adaptive system.

       7.- 19. (Cancelled)

15   20.   (Previously presented) The method of Claim 1 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

       21.   (Previously presented) The method of Claim 1 wherein the step of defining a plurality of realms is performed manually.

20   22.   (Previously presented) The method of Claim 1 1 wherein the step of defining a plurality of realms is performed automatically based on given properties of said one or more components.

       23.   (Previously presented) The method of Claim 1 wherein 1 wherein the step of defining associations is performed manually.

25   24.   (Previously presented) The method of Claim 1 wherein the step of defining associations is performed automatically based on given properties of said objects.

       25.   (Previously presented) The method of Claim 1 wherein the step of defining associations comprises identifying objects in different realms representing the same component.

       26.   (Previously presented) The method of Claim 25 wherein the objects in different
30   realms are substantially identical.

27.   (original) The method of Claim 25 wherein the objects in different realms are different.

28.   (original) The method of Claim 27 wherein the objects in different realms have different attributes.

29.   (original) The method of Claim 1 wherein step (c) comprises defining a relationship object between objects in different realms.

30.   (original) The method of Claim 1 wherein said plurality of realms are defined based on selecting subsets of components in said system.

31.   (original) The method of Claim 1 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

32.   (original) The method of Claim 1 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

33.   (Previously presented) The method of claim 2 wherein said unified processing is selected from the group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

34. – 41 (Cancelled).

42.   (Previously presented) The method of claim 2 wherein said unified processing is selected from a group consisting: root cause analysis of events in said system, and correlation of events in said system.

43.   (cancelled)

44.   (Previously presented) The method of Claim 1 wherein the step of dividing said system comprises the step of:

defining said plurality of realms based on one or more models of said system or portions thereof.

5   45.   (Original) The method of Claim 44 wherein said realms are defined by adding associations to one or more pre-existing models of the system.

      46. – 61 (Cancelled).

      62.   (Previously presented) A model of a system having one or more components, the model comprising:

10   a plurality of realms having objects therein representing one or more of components or relationships between components, wherein components include at least one physical element of the system, said objects representing attributes and relationships of an associated one of the one or more components; and

          associations between realms sufficient to unify objects in the realms, wherein said
15 associations represent at least one object common to at least two of said realms , and where a behavior of one realm is propagated to another realm using at least one association between the one realm and the another realm.

      63.   (Cancelled)

      64.   (Previously presented) The model of Claim 62 wherein the objects corresponding
20 to said associations in different realms are substantially identical.

      65.   (Previously presented) The model of Claim 62 wherein the objects corresponding to said associations in different realms are different.

      66.   (Original) The model of Claim 65 wherein the objects in different realms have different attributes.

25   67.   (Original) The model of Claim 62 wherein said associations comprise a relationship object between objects in different realms.

      68.   (Original) The model of Claim 62 wherein said plurality of realms are defined based on selecting subsets of components in said system.

5   69.   (Original) The model of Claim 62 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

           70.   (Original) The model of Claim 62 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

           71.   (Original) The model of Claim 62 wherein said system is an enterprise
10   management system.

           72.   (Previously presented) The model of Claim 62 wherein said realms comprise one or more business service realms, one or more application realms, and/or one or more infrastructure realms.

           72.   (Cancelled)

15   72a.   (Cancelled)

           73.   (Previously presented) The model of Claim 62 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an application server system a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging
20   system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

           74. – 86. (Cancelled)

           87.   (Original) The model of Claim 62 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure
25   components and at least one realm modeling network security components.

           88.   (Previously presented) A computer program product in computer-readable media for modeling a system having one or more components, the computer program product comprising instructions for causing a computer to:

5   (a)   divide said system into one or more components wherein components include at least one physical element of the system;

           (b)   define a plurality of realms including objects therein representing said one or more components said objects representing attributes and relationships of an associated one of the one or more components;

10   (c)   define associations between realms sufficient to unify the realms, wherein said associations represent at least one object common to at least two of said realms; and

           (d)   unify objects in the realms based on said associations and propagate a behavior of one realm to another realm using at least one association between the one realm and the another realm.

15   89.   (Previously presented) The computer program product of Claim 88 further comprising instructions for causing the computer to:

           perform unified processing of two or more realms by performing processing in each of said two or more realms, and combining results thereof based on said associations of said two or more realms.

20   90.   (Previously presented) The computer program product of Claim 88 wherein said system is an enterprise management system.

           91.   (Previously presented) The computer program product of Claim 88 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

25   92.   (Previously presented) The computer program product of Claim 88 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

           93.   (Previously presented) The computer program product of Claim 88 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an
30   application server system, a networked system, an optical network, a wireless network, an IP

5   network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

94. – 106. (Cancelled)

10   107.   (Previously presented) The computer program product of Claim 88 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

108.   (Previously presented) The computer program product of Claim 88 wherein the
15   step of dividing is performed automatically based on given properties of said one or more components.

109.   (Previously presented) The computer program product of Claim 88 wherein the step of defining associations is performed automatically based on given properties of said objects.

20   110.   (Previously presented) The computer program product of Claim 88 wherein the step of defining associations comprises identifying objects in different realms representing the same component.

111.   (Previously presented) The computer program product of Claim 110 wherein the objects in different realms are substantially identical.

25   112.   (Original) The computer program product of Claim 110 wherein the objects in different realms are different.

113.   (Original) The computer program product of Claim 112 wherein the objects in different realms have different attributes.

114.   (Original) The computer program product of Claim 88 wherein (c) comprises
30   defining a relationship object between objects in different realms.

115. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on selecting subsets of components in said system.

116. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

117. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

118. (Previously presented) The computer program product of Claim 89 wherein said unified processing is selected from a group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

119. – 126. (Cancelled)

127. (Previously presented) The computer program product of Claim 89 wherein said unified processing is selected from a group consisting of root cause analysis of events in said system, and correlation of events in said system.

128. (Cancelled)

129. (Previously presented) The computer program product of Claim 88 wherein the step of dividing comprises defining said plurality of realms based on one or more models of said system or portions thereof.

130. (Original) The computer program product of Claim 129 wherein said realms are defined by adding associations to said one or more models.

131. – 146. (Cancelled)

147. (Previously presented) An apparatus for modeling a system having one or more components, the apparatus comprising:

(a) means for dividing said system into one or more components wherein components include at least one physical element of the system;

5   (b)   means for defining a plurality of realms including objects therein representing said one or more components said objects representing attributes and relationships of an associated one of the one or more components;

           (c)   means for defining associations between realms sufficient to unify the realms, wherein said associations represent at least one object common to at least two of said realms; and

10   (d)   means for unifying objects in the realms based on said associations and for propagating a behavior of one realm to another realms using at least one association between the one realm and the another realm.

           148.   (Previously presented) The apparatus of Claim 147 further comprising means for unified processing of two or more realms by performing processing in each of said two or more

15   realms, and combining results thereof based on said associations of said two or more realms.

           149.   (Previously presented) The apparatus of Claim 147 wherein said system is an enterprise management system.

           150.   (Previously presented) The apparatus of Claim 147 wherein said realms comprise one or more business service realms, one or more application realms, and/or one or more

20   infrastructure realms.

           151.   (Previously presented) The apparatus of Claim 147 wherein the combined results identify infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

           150.   (Cancelled)

25   151.   (Cancelled)

           152.   (Previously presented) The apparatus of Claim 147 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a

30   messaging system, an ERP system, a dynamic system, a static system, a utility computing

5   system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

153. – 164. (Cancelled)

165.   (Previously presented) The apparatus of Claim 147 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling
10   network infrastructure components and at least one realm modeling network security components.

166.   (Previously presented) The apparatus of Claim 147 wherein the step of dividing is performed automatically based on given properties of said one or more components.

167.   (Previously presented) The apparatus of Claim 147 wherein the step of defining
15   associations is performed automatically based on given properties of said objects.

168.   (Previously presented) The apparatus of Claim 147 the step of defining associations comprises:

        means for identifying objects in different realms representing the same component.

169.   (Previously presented) The apparatus of Claim 168 wherein the objects in
20   different realms are substantially identical.

170.   (Original) The apparatus of Claim 168 wherein the objects in different realms are different.

171.   (Original) The apparatus of Claim 170 wherein the objects in different realms have different attributes.

25   172.   (Previously presented) The apparatus of Claim 147 wherein the step of defining associations comprises means for defining a relationship object between objects in different realms.

173.   (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on selecting subsets of components in said system.

174. (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

175. (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

176. (Previously presented) The apparatus of Claim 148 wherein unified processing is selected from the group consisting of: monitoring, analyzing said system.

177. (Original) The apparatus of Claim 148 unified processing comprises analyzing said system.

178. – 184 (Cancelled)

185. (Previously presented) The apparatus of Claim 148 wherein unified processing is selected from a group consisting of: root cause analysis of events in said system and correlation of events in said system.

186. (Cancelled)

187. (Previously presented) The apparatus of Claim 147 wherein the step of dividing comprises means for defining said plurality of realms based on one or more models of said system or portions thereof.

188. (Original) The apparatus of Claim 187 wherein said realms are defined by adding associations to said one or more models.

189. – 204. (Cancelled)

205. (Previously presented) An apparatus for performing processing relating to a system having a plurality of components, comprising:

(a) a storage device for storing a model of the system, the model comprising a plurality of realms having objects therein representing said one or more components or relationships between components, wherein components include at least one physical element of the system, said objects representing attributes and relationships of an associated one of the one

5   or more components; and associations between realms sufficient to unify objects in the realms, wherein associations represent at least one object common to at least two of said realms; and

       (b)   means for unified processing of two or more realms by performing processing in each of said two or more realms, combining results thereof based on said associations of said two or more realms and propagating a behavior of one realm to another realms using at least one

10   association between the one realm and the another realm.

       206.   (Original) The apparatus of Claim 205 wherein said system is an enterprise management system.

       207.   (Previously presented) The apparatus of Claim 205 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling

15   infrastructure components.

       208.   (Previously presented) The apparatus of Claim 205 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

       209.   (Previously presented) The apparatus of Claim 205 wherein said system is

20   selected from a group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive

25   system.

       210. – 222. (Cancelled)

       223.   (Original) The apparatus of Claim 205 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

5   224.   (Previously presented) The apparatus of Claim 205 wherein unified processing is

selected from a group consisting of: monitoring, analyzing, control, simulation, visualization,

configuration, provisioning and design of said system.

225. – 232. (Cancelled)

233.   (Previously presented) The apparatus of Claim 205 wherein unified processing is

10   selected from a group consisting of: root cause analysis of events in said system, and correlation

of events in said system.

234.   (Cancelled)

235.   (Cancelled)

236.   (Previously presented) A method of modeling a system having one or more

15   components, comprising:

(a)   defining a plurality of realms including objects therein representing said one or

more components, wherein components include at least one physical element of the system, said

objects representing attributes and relationships of an associated one of the one or more

components;

20   (b)   creating associations between realms sufficient to unify the realms, wherein said

associations represent at least one object common to at least two of said realms; and

(c)   unifying objects in the realms;

(d) unified processing of two or more realms by performing processing in each of said

two or more realms, combining results thereof based on said associations of said two or more

25   realms , and propagating a behavior of one realm to another realms using at least one association

between the one realm and the another realm.

237.   (Cancelled)

238.   (Previously presented) The method of Claim 236 wherein said system is an

enterprise management system.

5   239.   (Previously presented) The method of Claim 236 wherein said realms comprise at

least one realm modeling business service components and at least one realm modeling

infrastructure components.

240.   (Previously presented) The method of Claim 236 wherein said realms further

include at least one realm modeling application components.

10   241.   (Previously presented) The method of Claim 236 wherein said system is selected

from a group consisting of: an engineering system, a distributed system, an application server

system, a networked system, an optical network, a wireless network, an IP network, a layered

network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging

system, an ERP system, a dynamic system, a static system, a utility computing system, an

15   autonomic computing system, a grid system, an on-demand system or an adaptive system.

242. – 254. (Cancelled)

255.   (Previously presented) The method of Claim 236 wherein said system comprises a

network, and wherein said plurality of realms comprises at least one realm modeling network

infrastructure components and at least one realm modeling network security components.

20   256.   (Previously presented) The method of Claim 236 wherein the step of defining is

performed manually.

257.   (Previously presented) The method of Claim 236 wherein the step of defining is

performed automatically based on given properties of said components.

258.   (Previously presented) The method of Claim 236 wherein the step of creating

25   associations is performed manually.

259.   (Previously presented) The method of Claim 236 wherein the step of creating

associations is performed automatically based on given properties of said objects.

260.   (Previously presented) The method of Claim 236 wherein the step of creating

associations comprises identifying objects in different realms representing the same component.

5   261.   (Previously presented) The method of Claim 260 wherein the objects in different realms are substantially identical.

262.   (Original) The method of Claim 261 wherein the objects in different realms are different.

263.   (Original) The method of Claim 262 wherein the objects in different realms have
10   different attributes.

264.   (Previously presented) The method of Claim 236 wherein step of defining comprises defining a relationship object between objects in different realms.

265.   (Original) The method of Claim 236 wherein said plurality of realms are defined based on selecting subsets of components in said system.

15   266.   (Original)The method of Claim 236 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

267.   (Original)The method of Claim 236 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

268.   (Previously presented) The method of claim 236 wherein said unified processing
20   is selected from the group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

269. – 275. (Cancelled)

276.   (Previously presented) The method of claim 236 wherein said unified processing comprises propagation of behaviors of said system across realms.

25   277.   (Previously presented) The method of claim 236 wherein said unified processing is selected from a group consisting of: root cause analysis of events in said system, and correlation of events in said system.

278.   (Cancelled)

279. (Previously presented)The method of Claim 236 wherein the step of defining comprises defining said plurality of realms based on one or more models of said system or portions thereof.

280. (Original) The method of Claim 279 wherein said realms are defined by adding associations to said one or more models.

281. – 296. (Cancelled)

297. (Original) The method of Claim 4 wherein said realms further include at least one realm modeling application components.

298. (Previously presented)The method of Claim 2 wherein the unified processing identifies infrastructure problems impacting business services.

299. (Previously presented)The method of Claim 1 wherein the step of unifying is performed manually.

300. (Previously presented)The method of Claim 1 wherein the step of unifying is performed automatically.

301. (Previously presented) The method of claim 2 wherein said unified processing comprises event correlation of said system.

302. (Cancelled)

303. (Original) The computer program product of Claim 91 wherein said realms further include at least one realm modeling application components.

304. (Previously presented) The computer program product of Claim 91 wherein the unified processing identifies infrastructure problems impacting services.

305. (Original) The computer program product of claim 89 wherein said unified processing comprises for event correlation of said system.

306. (Previously presented) The apparatus of Claim 147 wherein said realms further include at least one realm modeling application components.

307. (Previously presented) The apparatus of Claim 148 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

308. (Original) The apparatus of Claim 148 wherein said unified processing comprises event correlation of said system.

309. (Previously presented) The apparatus of Claim 205 wherein said realms further include at least one realm modeling application components.

310. (Previously presented) The apparatus of Claim 205 wherein the unified processing identifies infrastructure problems impacting services.

311. (Original) The apparatus of Claim 205 wherein said unified processing comprises event correlation of said system.

312. (Previously presented) The method of Claim 236 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

313. (Previously presented) The method of Claim 236 wherein the unified processing identifies infrastructure problems impacting services.

314. (Previously presented) The method of Claim 236 wherein said unified processing comprises event correlation of said system.

315. (Previously presented) The method of Claim 236 wherein the step of unifying is performed manually.

316. (Previously presented) The method of Claim 236 wherein the step of unifying is performed automatically.

5   317. (Previously Presented) The model of claim 72 wherein said realms further include at

least one realm modeling application components.

       318. (Previously presented) The apparatus of claim 147 wherein said realms comprise at

least one realm modeling business service components and at least one realm modeling

infrastructure components.

10   319. (Previously presented) The apparatus of claim 147 wherein the unified processing

identifies infrastructure problems impacting services.

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(IX)   **Evidence Appendix**

     A. U.S. Patent No. 6,289,382 to Bowman-Aman entitled System, Method and Article of Manufacture for a Globally Addressable Interface in a Communication Service patterns

10   Environment cited by the Examiner in the Office Action dated 8/17/2009.

     B. U.S. Publication by Semeria, entitled Multiprotocol Label Switching: Enhancing Routing in the New Public Network cited by the Examiner in the Office Action dated 8/17/2009.

15   C. U.S. Patent Application Publication No. 2003/0079160 to McGee, entitled System and Methods for Adaptive Threshold Determination for Performance Metrics cited by the Examiner in the Office Action dated 8/17/2009.

     D. Office Action dated 8/17/2009

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     E. U.S. Patent Application Publication No. 2005/0021742 to Yemeni entitled Method and Apparatus for Multi-Realm System Modeling.

5   (X)   **Related Proceedings Appendix**

None

5 (XI) **Conclusion**

For the reasons given above, Applicants respectfully assert that the rejection of all

pending claims is unwarranted and improper. Accordingly, Applicants respectfully request

removal of the anticipation rejection of Claims 1-5, 20-33, 44-45, 62, 64-72, 87-92, 107-118,

129-130, 147-151, 165-177, 187-188, 205-208, 223-224, 236, 238-240, 255-268, 276, 279-280,

10 297-300, 303-304, 306-307, 309-310, 321-313, 315-319 in view of Bowman-Amuah and for the

removal of the obviousness rejection of Claims 6, 73, 93, 152, 209, and 241 over Bowman-

Amuah in view of Semeria, and for the removal of the obviousness rejection of Claims 42, 127,

185, 233, 277, 301, 305, 308, 311 and 314 over Bowman-Amuah in view of McGee.

Please charge any fees occasioned by this submission to Deposit Account No. 05-0889.

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Respectfully Submitted,

June 17, 2010   /Joseph D'Angelo/

Date   Joseph D'Angelo, Esq.
20   Reg. No. 56,800
                                                            EMC Corporation
                                                            176 South Street
                                                            Hopkinton, MA 01748
                                                            Telephone: (508) 293-7450
25   Facsimile: (508) 497-6915